

Departmental News

Abstracts of Recent Masters Projects

The 1993 Illinois Housing Needs Survey: An Analysis of Illinois' Housing Concerns and Resources from the Perspective of Housing Providers *by Mark McCann*

The Illinois Housing Development Authority (IHDA) commissioned the 1993 Illinois Housing Needs Survey to determine how IHDA can better serve the needs of state residents. The survey was sent to over 700 community development corporations, public housing authorities, municipal governments, non-profit client service organizations, and regional planning commissions. Two hundred responses from throughout the state revealed the housing needs of the residents of Illinois' diverse regions. Pressing concerns were evident in the City of Chicago, the Chicago suburbs, downstate cities (Rockford, Springfield, Champaign, Bloomington), and rural areas. The consensus about housing needs within regions and the diversity of needs from region to region were noteworthy. This paper analyzes the results of the survey, incorporates census results, and draws conclusions about how IHDA can improve housing conditions in Illinois.

Sports Facility Development: The Urban Planner's Perspective *by Chris Steele*

The 1990's have witnessed a wave of sports facilities construction unheard of since the first steel and concrete, or "fireproof", baseball parks were constructed in the 1910s. The large majority of these new facilities are publicly owned and operated, due largely to team owners' implicit or explicit threats to move

cherished sports franchises from their home towns. It is these threats, real or otherwise, that give sports teams great negotiating power and leverage when facilities, lease arrangements, and revenue streams are discussed. The result is that cities, or more accurately politicians, are only too happy to build facilities to save their teams, and hence their city's "image." The same can be said of cities attempting to woo existing franchises to relocate to their area.

Problems arise when towns realize, usually too late, that many of these facilities have been poorly sited, poorly designed, and lose money. Fiscal policy and urban design analysis are familiar tools for the urban planner. This paper explores the ways planners can be included to improve the sports facility development process.

An Evaluation of Transportation and Land Use Measures to Protect Urban Air Quality *by Andy Bollman*

This paper focuses on the use of transportation control measures (TCMs) to reduce air pollution in the U.S. TCMs have the ability to reduce mobile source emissions by eliminating or reducing vehicle trips, vehicle miles traveled, and/or congestion. TCMs are policies and programs that attempt to either reduce the demand for inefficient transportation alternatives (especially the single-occupant vehicle) or increase the capacity and efficiency of the current transportation network (e.g., through traffic signal synchronization). An overview of the implementation history of TCMs follows, including a description of the current legislative and political frameworks upon which planners must build. For example, the 1990 Clean Air Act Amendments and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) create an entirely

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new planning environment for TCMs, which includes mandates for TCMs in areas with the most severe air quality problems and increased federal funding for the implementation of TCM programs.

This background is followed by a detailed description and evaluation of TCMs that are available to local, regional, and state planners to mitigate the effects of transportation activity on air quality. The paper describes the evidence that has been developed on TCMs based on implementation experience and modeling studies. For each TCM, estimates are provided of the potential level of reductions in vehicle trips, vehicle miles traveled, and mobile source hydrocarbon emissions. Next is a description of TCM design and implementation issues, including the proper structuring of the TCM planning process, the interactive relationship between individual TCMs, and estimates of cost-effectiveness for each TCM. The paper concludes with a projection of the outlook for TCMs over the next two decades, and prescriptions for short-term and long-term TCM programs for the Research Triangle region. These prescriptions are based on the transportation and land use characteristics of the region and the lessons learned from TCM implementation in other areas of the country.

The Triangle Land Conservancy's Richland Creek Corridor Preservation Project: Corridor Management Plan *by Dave Feinstein*

This document is the first part of a two-part planning project of the Triangle Land Conservancy (TLC), a local land trust operating in the Raleigh-Durham-Chapel Hill, North Carolina region. In 1993, TLC set out to prepare a long-term preservation plan and acquisition strategy for the land along Richland Creek in rapidly-developing northwest Raleigh. Located between two large tracts of open space, Umstead State Park and NC State University's Schenck Forest, Richland Creek flows through one of the last substantially undeveloped stream corridors in Raleigh. As a result, the creek connects these two separate areas of permanent open space into a single, highly-viable habitat unit. The corridor along the creek encompasses a mixture of private and public trust lands, and the scenic beauty of the nearby natural areas have made these properties highly valuable for residential development. While some development of the area is likely, much of the creek may be degraded or closed to public access in the process.

To help ensure a sound future for the corridor, this document has been created for the Triangle Land Conservancy (TLC). It serves as an information data-

base and statement of TLC's preferred plan of action to guide the organization's efforts in preserving land in the corridor. The plan describes the natural and historic features of the corridor. It also provides tract-by-tract management guidelines for preserving and enhancing the corridor's ecosystem. Because all private land within the corridor cannot be acquired for preservation by TLC, the plan emphasizes the identification of the best opportunities to maximize corridor conservation. It also suggests the methods by which this may be accomplished.

The information provided by the database and plan is expected to form the basis for the second phase of the project—an expansion of the planning process to involve landowners, governing agencies, and other stakeholders. Through this project, TLC hopes to create a permanently viable open space corridor connecting Schenck Forest and Umstead Park.

Applying Neo-Traditional Principles to Large-Area Planning: A Framework for Building a Community Development Plan and Guidance System *by Toby Millman*

Many suburban communities are beginning to recognize that conventional approaches to planning and development management are resulting in unsatisfactory environments for their residents. Oft-cited examples of suburban ills include loss of community character, lack of community identity, inadequate and inaccessible parks, suburban sprawl, and poor access to urban services.

The principles espoused by neo-traditional planning advocates hold promise for correcting these problems. Their emphasis on compact, pedestrian-friendly development directly addresses many of the growth problems afflicting suburbia. To date, however, most neo-traditional endeavors have been confined to individual projects on isolated sites. While these developments are well-intentioned in their goals to improve quality-of-life, they are largely ineffective if the over-arching land use policies, and the resulting adjacent development are incompatible with the principles of neo-traditional development.

The benefits of neo-traditionalism can only be realized through a comprehensive re-orientation of the community's planning and development management systems. This document is intended as a guide for communities wishing to incorporate neo-traditional principles in the land use, transportation, and urban design components of their comprehensive plan. To this end, it is divided into three parts: 1) Establishing the nexus between neo-traditional principles and suburban development problems, 2) Discussing the conventional

development management techniques available to implement neo-traditional principles, and 3) Establishing a framework through which neo-traditional plans and guidance systems can be built.

A Coordinated Housing Development for Orange County's Low Income Population: Preliminary Feasibility and Recommendations *by Pete Farquhar*

Orange Community Housing Corporation (OCHC) received a grant in 1993 to coordinate the efforts of all organizations providing housing for Orange County's low income population. The result has been an agreement to develop several neighboring projects on one fifteen acre site north of downtown Chapel Hill. The site will include a shelter for homeless families, a shelter for battered women, apartments for the low income elderly, and apartments for low-income families.

Despite potential conflicts between elderly residents and the younger low-income population, the project is an excellent way to meet a variety of Orange County's housing needs. Locating the projects as neighbors presents several opportunities for shared services, including shuttle service, clinic space, and permanent housing placement services. The site will border the planned Southern Orange Services Center, which will provide services needed by each group of residents. Additionally, the coordinated development effort will minimize conflict over funding sources and sites.

This paper first examines the planning and social science literature that relates to each of the sub-projects. Next, the potential shape of each sub-project is described, based on interviews with each sponsoring agency. An assessment of the need for each project is also included, based on statistics provided by local agencies and census data. The most striking portion of this section describes the alarming growth in the number of families with children using Chapel Hill's Community House homeless shelter. Finally, the capital and operating budgets for each project are estimated, and potential funding sources are surveyed.

An Evaluation of Cluster Zoning in Practice *by Angela Gayle Shope Stiefbold*

Cluster development is an alternative to traditional subdivision, and is used to provide common recreation areas, conserve environmentally sensitive areas, maintain open space, and preserve rural character and farmland. Proponents have provided many site-specific examples of the benefits of cluster development,

but there has been little evaluation of the impact cluster zoning has had on development patterns in jurisdictions where it has been adopted.

This study evaluates the use of rural cluster zoning in Montgomery County, Maryland and residential cluster zoning in Chapel Hill, North Carolina. Both jurisdictions allow cluster as an optional method of subdivision. However, in Montgomery County the intent is to preserve agriculture and open space. Between 1981 and 1991, 85 percent of the subdivision applications in Montgomery County's Patuxent Planning Area were for cluster projects; in Chapel Hill, 30 percent of preliminary subdivision applications in the last ten years have been clustered. The contrast in the percentages is related to differences in the ordinances' requirements regarding open space dedication and lot dimension reductions and their resultant benefits and costs to developers.

Evaluation of cluster subdivisions in these two jurisdictions reveals that although significant amounts of open space have been preserved, there are weaknesses in the details of the ordinances that are limiting their successes. Very few agricultural uses remain on the reserved areas of Montgomery County's rural cluster subdivisions; instead they have become large lots for old farmhouse residences. The major weakness of the Chapel Hill ordinance is that it does not require a minimum amount of open space. This allows developers to benefit from reduced setback requirements while dedicating primarily steep slope and floodplain areas as open space.

An Analysis of Strategic Planning in North Carolina Communities *by Stacey Hodges*

This research, sponsored by the North Carolina Rural Economic Development Center, seeks to determine the shape that strategic planning has taken in North Carolina counties. The purpose of the study is to discover the commonalities, points of diversity, results, and lessons learned by planners. The following sources of information were analyzed: county and multi-county region strategic plans; responses to questionnaires sent to a sample of strategic planners; and telephone interviews with strategic planners. Forty counties and one region have completed the strategic planning process; fifteen counties and four multi-county regions are in the process of completing the process.

The plans and the processes from which they derive vary widely from county to county. Some of the plans are very achievable; some are visionary; some are overly expansive. Some plans are organized and visually friendly or use powerful and earthy language; others employ erudite language or use a dense, un-

friendly format.

Results varied as greatly as did the plans. Geographic region, size, and rural/urban character do not account for the variances. Despite the diversity, many planners shared common "lessons learned." The most important element of a successful plan was found to be the inclusion of broad-based participation. Citizen participation led to better decisions. Other important considerations that affected the success of a given plan included: the level of funding, careful implementation management, priority setting, and the selection of manageable issues.

The research revealed many stumbling blocks to the strategic planning process. However, strategic planning can prove to be an effective public planning tool with exciting potential if the proper input, commitment, and considerations are allowed.

Preservation and Development: A Development Management Plan for Old Havana *by Manuel T. Ochoa, Jr.*

The fall of the Soviet Union and the Eastern bloc has created political and economic difficulties for Cuba since 1989. The loss of subsidies has resulted in severe rationing, frequent blackouts, and continued deterioration of infrastructure. Meanwhile, American, foreign, and Cuban-American businesses are closely monitoring the situation and are considering strategies for development and reinvestment on the island. Rapid redevelopment could endanger the historic fabric and character of Old Havana which is deemed of "outstanding universal value" by the World Heritage Committee of UNESCO.

This paper describes the urban history and the planning and preservation history of Old Havana and then proposes a development management system for the area. The goal of the development management system is to provide a comprehensive and consistent framework that accommodates tourism and commerce, while maintaining the character of Old Havana. The development management system is based on Havana's planning traditions that balance preservation and development. The main features of the development management system include:

- an institutional plan that coordinates various planning and government institutions and encourages consistent and comprehensive planning;
- a new general plan and capital improvements plan to guide planning, preservation, and development; and
- a proposed plan of action to implement the general plan and capital improvements plan through regula-

tions, property acquisition, and a financial strategy.

The Transportation Effects of Neo-Traditional Development *by Michael Berman*

Neo-traditional development emphasizes a return to the grid patterns and walkable streets of the early part of this century in an attempt to improve conditions in the suburbs. Its proponents claim, among other things, that neo-traditional development will lead to dramatic reductions in driving. This paper argues that neo-traditional development may reduce driving and increase walking and transit use, but the benefits will likely be more limited than some of its proponents claim.

In today's environment, it is difficult, if not impossible, to have meaningful access to the full range of activities in suburban areas without an automobile. Therefore, neo-traditional developments will reduce driving significantly only if they provide similar levels of access to activities. The greatest effects can be expected for shopping trips in areas where there are few available shopping centers and for other non-work trips that can be accommodated on foot in a neo-traditional development. This implies a planning strategy that emphasizes neo-traditional developments in fringe areas rather than in well-developed suburban areas.

Application of GIS Techniques to Open Space Suitability Modelling in the Western Cary Extraterritorial Jurisdiction *by Ed Wilson*

This paper analyzes the use of GIS techniques in open space planning. The study area is a mostly undeveloped 1,500 acre tract in the Cary Extraterritorial Jurisdiction (ETJ), just outside of present Town limits. The tract occupies the entire area bounded by five roads (NC Highway 55 and four rural roads) and forms the upper portion of the Panther Creek watershed, which drains into Jordan Lake. The project involved collecting digital and hard copy spatial data of various factors for this tract, mostly landscape features like topography, land cover, and hydrology. Using Arc-Info GIS software, these data were processed (manually digitized where required) and overlaid in order to model the most suitable open space areas. The landscape features and results of the suitability modeling were presented in a series of color maps plotted on a Calcomp electro-static plotter (approximately 40" by 30").

The possible planning applications of such an information base are discussed, but the emphasis is on the process of selecting, obtaining, and processing the data most helpful in such a study. The results are critiqued

for their level of reliability and applicability in open space planning.

Federal Urban Mass Transportation Funding and the Case of New York City's Second Avenue Subway *by Matt Lawlor*

New rail transit systems in the U.S. have been the subject of much debate in the last twenty years. This debate has centered on two aspects of these systems: construction costs and ridership levels. By and large, the new systems have cost far more than originally planned and attracted far fewer riders than forecasted. Critics have argued that these recent failures are cause enough to call into question the process by which the federal government's discretionary capital grants program is run. These programs have provided a majority of the funding for the recently built systems. Some have even suggested eliminating the grant programs.

This paper seeks to move the debate a step further, and compare the relative capital cost and ridership benefits of the new systems to the Second Avenue Subway, a system extension project in New York City which was aborted due to lack of capital funding. Simply put, the paper points out that the failure of the new systems to achieve their objectives, and the failure of the Second Avenue to be built, are closely linked. This provides further support for those who want to see the federal government's urban mass transportation capital funding scheme significantly reformed. cp